I.A.P.T.

SEPTEMBER 1952
VOL. I No. 7

TAXON

Official News Bulletin of the International Association for Plant Taxonomy. Edited and Published for I.A.P.T. by the International Bureau for Plant Taxonomy and Nomenclature, 106 Lange Nieuwstraat, Utrecht, Netherlands

In memory of G. E. Rumphius (1702-1952*)

by

H. C. D. de Wit (Leiden)

On May 19, 1702, the Governor of Ambon wrote to the High Government at Batavia, referring to Georgius Rumphius, that "nothing more was to be expected of that old gentleman, having lived his years". Some two hundred and forty years have passed, since this announcement was made and we know that the Governor's judgement proved to be correct as regards the life and work of Rumphius as, less than a moment later, he died; it was on the 15th of June. Rumphius occupies, however, in the history of the natural sciences an everlasting place of honour.

Although it seems to me a privilege to be allowed to evaluate the course of life and botanical research of so distinguished a scientist as the author of the *Herbarium Amboinense,* this task became most interesting and attractive when it appeared that Rumphius was not only unequalled in his basic research into Moluccan natural history but also an outstanding person because of his excellent character, his personality.

When studying the legacy of an important historical figure, and when trying to conceive an idea of the qualities of the man whose achievements commanded respect and admiration, one is inclined to idealise, to embellish his character and way of life and it appears all too often, after unbiased consideration of the facts, that the quality and nature of his personality are below of what might be expected when judging from his remarkable results.

It rarely happens that a great scientist is also great as a man but, if so, an effort to outline the life and work of such a person is a most gratifying undertaking. Then, a close study of the course of events and the meaning of his research in the past and in the present rouses in the biographer a warm and many-sided appreciation, and it leads to humbleness and to inspiration.

This train of thought reveals the heart of my tribute to the memory of Rumphius; the goodwill and respect we owe this 17th century naturalist working in Amboina, on account of his knowledge and ability, his character and his example. After two hundred and fifty years the moment has arrived to reconsider the story of his life, the incidents that happened to his writings, to gauge the importance of his work, and finally, to endeavour to understand the man himself, to conceive on what ground so beautiful a garden could thrive.

Early years and career

Where and when Rumpf was born — Rumpf was his family name, and Rumphius he was to the learned world and to posterity — is not quite certain. Probably it was in 1627 and, again probably, in the county of Solms at, or not far from, the little town of Hanau. He is therefore generally believed to be German of origin. As he was baptized as Georg Everhard Rumpf, his name fully supports this view but the point might be made that his mother, whose Christian names Anne Elisabeth are known only, may very well have been Dutch. There is no clear evidence in support of this suggestion but, nevertheless, if it is realized

*) Address (in Dutch) to the Royal Netherlands Botanical Society on May 17th, 1952, in the Hortus Botanicus at Amsterdam. All quotations have been translated from the original Dutch into English.

that the Hanau population was made up of Dutch refugees, followers of the Evangelical Church, who had fled to Hanau in consequence of religious persecution, and that the Rumpfs belonged to that sect, there is at least that possibility. From a scientific point of view it is unimportant whether Rumphius was German or Dutch but in case his nationality were actually of this nature it would explain why Rumphius wrote Dutch to perfection and without germanisms. It would explain also — and this indication is the most difficult to define of all though perhaps the most convincing — why Rumphius was wont to spice his writings with a quiet, light-footed, typically Dutch humour, widely different from the German kind. It makes it natural that he listed with the Dutch East India Company as "Jeuriaen Rumpf". He was baptized as "Georg", "Jörgen" is the low-German form of that name, and "Jeuriaen" the Dutch version. This connexion was not always understood and in one of the biographies it is even assumed that Rumphius wished to hide his true identity and had adopted a false name, a popular practice in his day.

Rumphius enlisted with the Dutch East India Company, and for a good reason. Shortly after he had matriculated at the "Gymnasium" at Hanau, an officer enrolled in the town soldiers on behalf of the Republic of Venice. The officer was a nobleman and related to the ruling House and, of course, his words were not much questioned. Actually he was in the service of the Dutch West India Company which warred against the Portuguese in Brazil. Rumphius, aged 18 years, wished to see the beautiful world. In the belief that his destination was Venice, he embarked in "De Swarte Raef", bound for South America.

He never reached Brazil. The Portuguese captured the ship. But, after the good custom of that day, they brought the prisoners to Portugal to be incorporated into the Portuguese Army; they were practically free in their movements and roamed through the country visiting many parts of Portugal. Rumphius passed some time at Lisboa and he must have seen there the East Indiamen, ships as he will have seen in Holland. The treasures in merchandise they carried remained, I presume, hidden for his eyes but there were treasures of a different character brought to Europe by these ships, fascinating stories of marvels seen, of adventures never dreamt of. Curiosities, objects of natural history served as an illustration to what was told.

And Nature in Portugal itself drew his attention. Many years later he referred repeatedly to observations made there. Returning, after three years, to Hanau, the East has become more than a rumour to him; it is real. He stayed another three years at Hanau and then he entered into the service of the Dutch East India Company.

Thus, on Boxing Day, 1652, midshipman Rumpf sailed on the yacht "Muyden" from Texel, a harbour on the island to the north of Holland. Here was an exceptional Company's servant, if ever there was one, a soldier not leaving for easy gains, or to escape justice, or in hope of a rapid career, but a young man, who was desirous to start "the elucidation of Amboina's plants, this being surely first of all the reason why he proceeded to India". In June, 1653, he reached Batavia safely, and at the end of that year he was on Amboina.

To our purpose it is, for the moment, not necessary to follow his official career in detail. In a rough outline of his activities mention ought to be made of his good services at planning or constructing fortifications in the Moluccas; his views sometimes prevailed over those of high-ranking military men. He became known as a linguist, not only on account of his botanical writings in which he appears to be acquainted with Hebrew and Arabic, but also as the author of a Malay dictionary, a manuscript now lost. He revised the Malay sermons of Dominé J. Molanus, and Governor Hustaerdt described him as "a man of true ability who complies very well with the character of the Ambonese, writing and reading Arabic".

In 1657 he is appointed as second merchant ("onderkoopman") and in this period his marriage may have occurred. He was made merchant ("koopman") in 1662.

The beginning of the Herbarium Amboinense

The years of apprenticeship were past. He was now in a position to take up the studies for which he had been longing. On August 20, 1663, he wrote the classic letter to the Board of XVII in which he announced his plans and asked to be allowed that books purchased in Holland should be forwarded by Company's ship to Ambon. It would be an omission not to cite some lines from that letter.

"And so it came to happen that I commenced a work in which will be described all such

Plants, Herbs, Animals & c. as I came across during my time of residence in India, and which I am to see. With their correct Names, either from the ancient Greek, Arabic, or Latin or from recent Authors, elucidated by me and among each other compared and contrasted, and their fitting depictions (insofar as my art allows me) portrayed after the living condition; to all added their virtues and powers, both from the Old and Previous writers and particularly by personal experience most industriously elaborated, partly investigated by me in person and assembled, and finally numerous other researches concerning the *Scientiam Physicam et Mathematicam;* all these combined with more pains, ardour and fittinger methods than were applied, I trust, hitherto. And thus I became occupied in these uncharted and so far little known fields, a work where I meet with few predecessors or guides, and where the paths run entangled everywhere, and therefore I stand in need of various good and trustworthy authors, who might serve me in this Indian wildnesses as a compass and a stay to the Memory".

Governor General Joan Maetsuycker, barrister-at-law, was a patron of the sciences; Rumphius's application obtained his support and so the Company assented.

Later years, blindness, the fire of Ambon; his death

In 1666 Rumphius was temporarily appointed as "secunde" at Ambon, a high rank directly under the Governor. He was elected only for reason of his many-sided abilities and irreproachable character. Proof of this contention is not, in the first place, in the official comment in the letter of notification and recommendation sent to Batavia by the Governor of Ambon, Pieter Marville, but in two other circumstances. First: he was, actually, not confirmed in this post but another man, clearly pushed by influential persons, was put in his place. If Rumphius had been promoted through protection, it would have been difficult to reduce his rank again. Second: when he was replaced in his former position, a "certain bit of land" was presented to him, as a consolation gift. The official acts explain that "it was not thought to yield more than a hundred crowns (rycksdaelders) when sold". The nature of the fit — a vacant lot to lay out a botanical garden — demonstrates what were the wishes of the recipient and, on the other hand, the official appraisal as a donation of small value shows that no powerful authority, dissatisfied over the slight to one of his protégé's, had to be placated.

In this manner Rumphius obtained, in the fall of 1666, his Physic Garden ("Thuyn"). Not long after, his contract as a Merchant with the East India Company expired (1667). He applied to be dismissed and expressed his desire to leave for Batavia, but, he added, before leaving Amboina, he wanted to be allowed to stay another 8 or 10 months, as a private person "to the End of an untroubled prosecution of his curious studies". This was declined. The Company adhered to the strict rule that only Europeans *in her service* should have residence in East India. However, another proposal is made. If he consents to prolong his contract another year, the Company is prepared not to transfer him during that period and "in order to promote said curious studies We will be agreeable that he receive facilities, and be allowed such periods of leisure as may be borne without damage to the Company's interest". Maetsuycker's policy is easily divined from this quotation but also the esteem in which the Company held Rumphius, as a servant and as a scientist.

A year elapsed and again Rumphius announced his plan to depart. Actually . . . he stayed. When the moment for embarkation approached, he objected, saying that the ship, "that puny flute "Loenen" ", was unsuitable. He declares himself unable to understand "why he should be made to suffer all this discomfort due to so much hurry, and to crowd his family, who is besides entrusted to his care, like a batch of sheep in that tiny vessel". And he ended by returning to his former request, to be allowed to continue his research during a number of months before leaving. The Governor is of a quite different opinion. He judged that the ship was very suitable. And Rumphius, in that revealing letter written in support of his wish to remain longer, added: "that I seek to execute my special studies during this prolonged stay also to the common weal like during my present merchantship, which masque I am compelled to wear in these days, to earn a daily living for me and my dependents".

I believe that the Governor was right. It seems to me that the "Loenen" offered a reasonable passage to Rumphius and his family. Rumphius himself, it is evident from the

lines cited above, wrestled with the problem: to return to Europe or to take leave from the home land for ever. Why, in reason, should he stay? It took time and an inner struggle before he realized that, in his heart, he never meant to leave. That, surely, was the true cause of his sombre view on the accomodation in the "Loenen" and why he, only a year before he could be expected to return to Europe, asked for a private garden. Without knowing, he had in his heart been resolved to stay on Amboina as he wished, first of all, to continue his pioneer investigations.

Very suddenly, in 1670, the High Government is informed that Rumphius has become blind; a disease of the eyes from which he suffered a long time, had run its fatal course. It was, at that moment, not a complete blindness because in one eye a little perception of light lingered on but, not much after, this disappeared too.

Jacob Cops, then Governor of Ambon, directed him without delay to appear in person at the Castle Victoria and to proceed from his residence at Hitu to Amboina "to be instructed what hopes remained for his recovery, judging that he so continuing the required service shall not be drawn". Experience had taught Rumphius that travel made the last remnants of light in his eyes vanish for days and he applied for a postponement, because the hardships of the way were too great. Cops sent his refusal by returning messenger, appointed a substitute, and ordered Rumphius again to proceed to Amboina "and not otherwise". And so he arrived, June 21, 1670, at the Castle.

Rumphius was in need of support, and in due course he found succour. Maetsuycker and the High Councillors of the Indies, sent an official reproach to the Amboina Government and decided that Rumphius will be maintained in all his dignities, remarking: "that perhaps an easier attitude concerning his person at Hitu might have been struck".

Rumphius remained at Amboina, a high-ranking local authority, this time certainly under the protection of the High Government.

It was the 17th of February, 1674. In the gathering dusk Mrs Rumpf and her youngest daughter went for a visit to a Chinese friend to look at the Chinese New Year celebrations, a colourful procession through the streets, to be held later in the evening. They saw Rumphius passing by to take the air. Some minutes later a disastrous earthquake destroyed the larger part of the town. The women were both killed under the rubble of the collapsing walls. Rumphius, hastening back, is informed of what has happened. The clerk of the Journall or Daily Record on the Castle Victoria reported the story and added the following comment: "And very sad it was to perceive that man sitting near these his bodies, and to hear his lament, both on this accident and his blindness".

Rumphius continued his work but there is no end to the adversities of fate. On January 11, 1687, a great fire turns the town of Amboina largely to ashes. His library and many manuscripts, including his own original illustrations for his *Herbarium Amboinense* were lost forever. Among the manuscripts were a key to the first two volumes of the earliest large work on the flora of India, the "Hortus Malabaricus", and an interpretation of the writings on natural history by the Batavia surgeon, Jacobus Bontius, who worked about 1630.

Rumphius repaired the damage as well as he was able to and the Company helped him. Assistants were put at his disposal. In 1690 the first six books of the *Herbarium Amboinense* were forwarded to Batavia there to be shipped for Holland. And while he was engaged in studies into the geography and history of the Moluccas Rumphius kept to the set aim to revise his exemplary herbal, to enlarge and illustrate it, in order to "occupy the mind suitable as without this he anticipates to be compelled to end his days in melancholia".

The Governor of Ambon, addressing the High Government on May 20, 1697, alluded to manuscripts "of lesser interest" and which were "thus not so greatly recommended to Your Honourable Board, being the *"Amboinsche Rariteitkamer"* (Ambonese Cabinet of Curiosities), consisting of three books, and three further books on land-, air- and sea-animals of these islands". Rumphius became weaker and his age weighed heavily. In 1701 he completed the final part of his Herbarium, "being a Auctuarium or Final Gift". On June 15, 1702, his life was ended.

Rumphius's assistants

In this fashion Rumphius laboured in many fields. Strictly speaking, a short account of the destiny of his *Herbarium Amboinense* and a survey of the effect it produced on scientific

botany — which will be the rest of this outline of his pioneer life and work — is inadequate. Obviously, a man who was blind during more than 30 years of the 40 it took to write the *Herbarium Amboinense* — a large folio work in six bulky volumes — must have had capable assistance.

In the early years there was his first wife, whose Christian name Suzanna is the only that has remained. It is now the specific epithet of *"Flos Suzannae"*, a beautiful white orchid, named after her by Rumphius, who wrote: "in memory of her who during her life was my first mate and helpmeet when searching for herbs and plants, and who showed me this flower also". This is all but few epitaphs are both so simple and so beautiful.

Paul August, his son, made many drawings of plants when he himself, after the great fire, could not remake his own lost pictures. The only portrait of Rumphius extant we owe Paul August, also a servant of the Honourable Company. Sent to Holland to study he lived about 1680 at Amsterdam. His official career was not spectacular. In 1699 he was appointed in his father's former office when the manuscripts of the *Herbarium Amboinense* had arrived in Holland, "not to leave unrewarded the laudable pains taken by the father and to remunerate that gentleman provisionally". Paul August profited only a short time of this post. In 1705 he was dismissed on account of illness and he died in 1706, only four years after his father. The losses suffered through the fire of 1687 were largely made up by Paul August. He was charged by the Company to do that work and was aided also by Philips van Eyck, a draughtsman sent to Amboina especially for this purpose (1688).

Other assistants may be remembered here in a few words. Daniel Crul drew for Rumphius about 1680, the soldier Pieter de Ruyter was trained by Van Eyck and remained with Rumphius after Van Eyck had departed (1696), probably till Rumphius died. As a scientific worker of some initiative and independence, J. Ph. Sipman seems to have taken part in the undertakings. Although the text of the *Herbarium Amboinense* is indisputable entirely Rumphius's, a part of the *Rariteitkamer* was written by Sipman. Some plant specimens collected by Sipman are still in the British Museum while no remnants of Rumphius's personal herbarium are known to exist. When Sipman, preparatory of his return to Holland arrived at Batavia (1696), he put into order the manuscripts of the *Herbarium Amboinense*, which were there, while Rumphius wrote in a letter of introduction: "Johan Philip Sipman, a person versed and graduated in medicine, who served nearly four years with me as an Assistant and who has consequently a thorough knowledge of my writings ... whose knowledge Your Honour may safely rely on when salving my botanical work". More names may be recalled. Christiaen Gieraerts, a relative by marriage of Rumphius's, who used to accompany him on collecting trips and who helped to copy the manuscripts, residing at Batavia in later years.

Good drawings made J. Hoogeboom. And, with his growing repute the number of friends or colleagues who supplied him with materials or information increased; they were e.g. Herbert de Jager, traveling commercial ambassador of the Company, Dirck de Haes, Governor of Ambon, Wilhem Sabelaer, "Chief" at Palembang, and many others. His research was noted in many quarters and led to his appointment (1681) as a member of the famed *Academia Naturae Curiosorum*, which august body endowed him with the title: *Plinius Indicus*.

And so, in 1690, the first six books of the *Herbarium Amboinense* sailed to Batavia. The Governor-General perused them with the closest attention. Camphuys was a highly educated man and a lover of natural history. He resolved not to forward the manuscripts without precautionary measures and ordered them to be copied. This deserves high praise because, when in 1692 the first six books in originali were on the way to Holland, carried by the "Waterland", the vessel was sunk by the French and its cargo entirely lost. Camphuys ordered a second copy to be made but this was not finished when he died on July 18th, 1695. Four days before his death, he gave from his bed Isaac de St Martin a special order to see that the copy be completed and that the work were sent anew. De St Martin, himself also a penfriend of Rumphius's, willingly accepted the task and in February, 1696, books went to Holland, to arrive there safely. In the meantime De St Martin died (April 14, 1696) and relegated the task to Cornelis Chasteleyn, who brought the work by industry and good care to an end.

Books 10 to 12 were put into order and completed largely under Chasteleyn's supervision, and for the time being the *Herbarium Amboinense* was ready. The work done at Batavia

should not be underestimated. Cornelis Abramsen, former servant of Rumphius's, made a considerable number of coloured plates, usually after living specimens collected for that purpose in the Batavia district. This was required in the first place to substitute 61 plates stolen from Rumphius's office in 1695. The thief, presumably, was less interested in the plates than in the box that contained them. Sipman, Chasteleyn, Dr W. ten Rhyne, a famous surgeon, and others made ready whatever they were able to and so when Sipman and Van Eyck departed for Holland in 1697, books 10 to 12 went with them. When in 1701 the "*Auctuarium*" arrived the whole work had landed in safety.

The publication of the Herbarium Amboinense

Already in 1700, "some amateurs and printers" requested to be allowed to publish the Ambonese Herbal. This met with restistance; the plans "were in no manner excusable". What reason moved the Lord Directors is uncertain: conceivably, the Company dreaded some detriment to her trade. Two years later, however, it was resolved that the work was to be printed as soon as the demand was made.

This demand was only lodged in 1736, by Professor J. Burman, who since 1731 occupied the Chair of Botany in the University of Amsterdam. Between 1741 and 1750 he edited the work in six volumes in a most satisfactory manner. He translated the Dutch version by Rumphius into Latin and he treated the texts as has been demonstrated, with a degree of accuracy and reverence as was unusual in his day. Of the drawings and coloured figures in the original he had etchings made, an inevitable loss owing to the high costs of a reproduction in colours.

And so the six volumes are now in our hands. The book appeared before 1753 and, as regards the date of publication, it is pre-linnean, with the exception of the *Auctuarium* that was published in 1755. The *Herbarium Amboinense,* in matters of nomenclature, contains no legitimate names. It consists of 1660 pages of print, nearly 700 plates, and the description of about 1200 species of plants. What meaning has this large work to botany?

Interpretations of the Herbarium Amboinense

Rumphius, being unaware of course, of the developments in nomenclature to be made by Linnaeus, did not use the binomial system and his names could never be used by our modern naming standards. Indirectly, the influence of the *Herbarium Amboinense* on nomenclature is important because more than 350 binomia rest on, or are typified by, the book. The interpretation of those names has to start with the data provided by Rumphius.

Till the present, the Rumphian names have been referred to either critically or as a reference, in more than 1000 scientific botanical publications. It may be stated that every botanist, who is engaged in the study of Moluccan plants or Malaysian botany, will meet with the *Herbarium Amboinense* on his way. But, if so, this is not the main point. It cannot be denied that if at the present time information is desired concerning the life and behaviour, or the significance to the people, or the history, of a plant, the *Herbarium Amboinense* is the first, and as a rule the most exhaustive, generally also the most reliable source; briefly: it is the best. It is very rarely found that a botanical work, written three centuries ago, still holds a leading position and this not because no investigations were made after its appearance.

In addition, this state of affairs is not confined to purely botanical matters. If the economic botany of the Moluccas shall be developed, and plants like the Coconut, the Sagu Palm, Musa &c. are to be studied, the work of Rumphius is bound to receive close attention and it will yield basic and directive data for modern lines of research.

Naturally, it was repeatedly tried to name and interpret according to post-linnean principles the species described by Rumphius.

There are many authors and scientists who published on the subject. It may suffice to refer to a few facts pertaining to Rumphius's botanical work.

Linnaeus took scant notice of the *Herbarium Amboinense* in his *Species Plantarum.* He was, himself, aware of some shortcoming as he explained that the *Herbarium Amboinense* arrived too late to be thoroughly studied. In 1751 the whole of the work had left the printers' and the first volumes appeared 1741—1745. And in Amsterdam, staying in 1737 at Burman's house, Linnaeus had read the manuscripts. I think that Linnaeus's statement is not quite borne out by the facts although I am not prepared to subscribe to O. Kuntze's view, who contended in his *Revisio Generum Plantarum* that Linnaeus neglected the work

intentionally and for base motives. It seems to me reasonable to suppose that to fit the whole of the *Herbarium Amboinense* into the Linnean system was too large and too complicated a task even for the master. At any rate, it cannot be denied that the *Species Plantarum* edition of 1753 contains less than 20 references to the Herbarium. Under supervision of Linnaeus, one of his pupils, O. Stickman, devoted a small, superficial study to the Ambonese Herbal and this is nearly all trouble Linneaus took. He commemorated Rumphius in a genus *Rumphia,* based on a plant described by Rheede van Draakesteyn in *Hortus Malabaricus;* the type species was Indian and not occurring in the Moluccas and the genus itself appeared to be synonymous with *Cordia.*

Other botanists to be mentioned in this connexion are J. Burman, who compiled Indexes 1755, 1769 to the *Herbarium Amboinense* drafted after the Linnean system, J. C. M. Radermacher, founder of the famed Bataviaasche Genootschap, who listed (1781) the plants found in Java and described by Rumphius, Dr F. Buchanan-Hamilton, a surgeon who served in British India and wrote (1826—1832) a detailed commentary on the first volumes of the *Herbarium,* A. W. E. T. Henschel, a physician who, on being appointed as a Professor at Breslau published (1833) a "Habilitationsschrift" containing all data he had been able to assemble from literature on the life and work of Rumphius. The founder of the Buitenzorg Herbarium, Dr J. Hasskarl, who studied the *Herbarium Amboinense* with great industry and published (1866) his results in a *"Neuer Schlüssel",* had less success than his ardour had deserved, owing to his rather limited practical knowledge of plants and his taste for detail. Dr C. L. Blume, the Leiden Professor and botanist, edited about the middle of the 19th century the splendid serial work *"Rumphia"* (1835—1845) in which considerable attention was paid to the work of Rumphius.

All efforts so far attempted, were left far behind by Dr E. D. Merrill's *"Interpretation of Rumphius's Herbarium Amboinense"* (1917). Here were identified from a modern point of view, nearly all species described by Rumphius, and in many respects this work is final.

Merrill based his conclusions mainly on specimens collected in loco. This idea was not new and repeatedly it had been tried by various collectors to secure a representative collection in the Moluccas. This time, the attempt succeeded better than ever before. A young botanist of the staff of the Manila Herbarium, Dr C. B. Robinson, assembled during half a year in 1913, plants and data. He had finished about half his task when he was attacked by natives during a trip and murdered. Robinson laid down his life like Dr J. G. Boerlage did, in 1900, when he died from tropical fevers on arriving at Ternate being en route for the same purpose.

Although the majority of species described by Rumphius are easily recognizable, many misinterpretations have long persisted. This is partly due to the custom of older authors to refer to Rumphian names as synonyms of species described by themselves. It was often assumed by later workers that the fact that their predecessors cited as synonymous a Rumphian name was to be taken as an argument for conspecifity. It was overlooked that botanists of the 18th and aerly 19th century added "synonyms" to the specific names they used not with the intention to declare that they considered the Rumphian taxon identical with their own but rather as a reference only and meaning that the Rumphian plant was possibly identical but certainly somewhat similar or allied to the plant they described and named.

After comparative and critical research it is often possible to rectify erroneous identifications. The surprisingly close and accurate descriptions made by Rumphius, very often, lead to firm results. The most recent example that has come to my knowledge is in *Sonneratiaceae,* when the data recorded by him proved to be unambiguous and clear and the problem of the correct name of a well-known mangrove species could be solved (Fl. Mal. I. 4^3: 282, 285. 1951). Facts of this nature induced me to a consideration of the quality and standard of Rumphius's work in botany.

Systematic insight

Rumphius was to a fair degree aware of natural affinities but not above all a systematist. When accepting relationship he is mainly directed by smell, taste, habitus and habitat of the plant, also by its economic uses. A species concept, like we are conscious of, was definitely less evident to him, but he delimited species very often entirely in accordance

with present day views. His use of "male" and "female" pertaining to different plants which he put together for various reasons, is widely known. He distinguished in that manner taxa of which e.g. one had a coarse bark, hard wood, and inconspicuous flowers, whereas the other, the "female", had a smooth bark, softer wood, and larger flowers. The method, no doubt, is in accordance with the same that is actually in use since the dawn of mankind. Even in Europe traces of it are left. So, in Sardinia, the cork oak yields two kinds of cork, the outer, coarse bark, known as "male cork" and the inner, smooth bark, the "female cork". One does Rumphius an injustice when his systematic feeling is deprecated because he "united" two quite different species represented by "male" and "female" specimens. What he did was not giving a taxonomic judgement but he wished to contrast two sets of characteristic properties or virtues found in two plants; these characteristics he thought to be of the same kind but two different or opposite aspects of that. That concept is now obsolete and it has little to do with the kind of taxonomy we are now familiar with.

Phytography

First of all Rumphius was an admirable describer of plants, a phytographer. Greene, the outstanding American historian, once wrote: "If the born botanist — not the machine made one — write of plants, he will find language wherewith to enable his readers to see what he has seen in a plant: and this is phytography". This might have been written as a comment on Rumphius's descriptive work. Practically without technical terms — how few technical terms could he have found in his modest library, and even so, how few of them could be made to fit to his tropical plants! — he succeeded through a simple, sinewy language to portray his specimens, and this in a so striking- and vivid manner that the heart misses a beat from surprise and pleasure when one sees them alive, in nature. It is an exquisite pastime, and I have been so very fortunate as to taste it, to read some of Rumphius's descriptions and after that, to walk out, let us suppose in the Botanic Gardens at Bogor, and inspect those plants, alife and thriving under a tropical sun. That moment of recognation, in consequence of the quality and force of the Rumphian descriptive article, has something of a revelation and since those days I have been conscious of Rumphius's unequalled gift as a phytographer. To read Rumphius and to meet in their natural surroundings with his subjects, is one of the best and most unforgettable experiences a botanist may enjoy in Indonesia.

If a description is desired of the Cocos Palm, the Arenga or Sugar Palm, the Betel Palm, *Nepenthes, Cassia fistula* &c., there is no better sample available than in the *Herbarium Amboinense,* where the plant is pictured by the magic of words in an inimitable manner, clearly, unmistakably through sober, vigorous and plastic style and language used by Rumphius.

Method

Other virtues of his works have been alluded to before. His highly accurate and critical compilations or summaries of data gleaned from literature or from his own experience, his careful research into and control of the seasons for flower and fruit, his fixed habit, unusual in his day, to indicate growing localities, both topographically and geographically, and particularly his balanced and well founded judgment, this all made Rumphius to an author who in the tropics was never equalled by contemporaries and in the rest of the world only very rarely. On considering all he brought about and realizing, that he laboured in that distant islet of Amboina, handicapped by his physical disability, without a reference library comparable to any average European library, without contact to other botanists, except for a letter now and again, one cannot but feel that here is a testimony of human perseverance and purpose, of such rare talents and so great an industry and unselfish devotion to the progress of natural sciences that the question must be put: "who was that man, who worked so extraordinarily well under such extraordinary adversities?"

Rumphius's personality

It seems impossible that the human mind could hope for a full understanding of, or even fathom, the mind of a fellow-being. Nevertheless, some striking traits may be indicated. As regards Rumphius, there are the official comments made on his character. His superiors described him as conducting "an honourable and measured life and of a modest and

condescending disposition, and especially a conscientious and upright personality, not mean or rapacious". Although this supports the opinion which could be founded on the events occurring in his life, it may be still preferable to try to divine Rumphius's character by means of a search through his works, however silent he is on matters relating to himself.

Facts from hearsay, communicated to him by natives, he put faithfully on record, though he made a choice. He never repeated uncritically. When the stories appear to be strange he apologized for drawing the attention to them but, he said, he had noticed that in the tales and folklore of the inhabitants often a nucleus of truth lay hidden, and this is not to be rejected nor despised but deserves to be discovered. He wrote: "sometimes I have recorded some fabulous, superstitious, and to all appearances ridiculous stories; I did thus because I found always a grain of truth in them, this being the fashion of the natives, to disguise the truth of great and marvellous matters by a number of fibs; also to stimulate curiosity and taste for further study in those who will come after me".

This is the attitude of a man who, in his search for "truth" accepts it as he finds it and is prepared to swallow his prejudices.

When speaking of the work of Clusius, Scaliger, Bontius, Bauhin and others who referred incidentally to Malaysian plants, he indicated without any unnecessary stress their errors, and he never rejoiced or reacted smugly when finding serious mistakes committed by authors so much more illustrious than he himself. Rumphius exonerated them, explaining that he is in an incomparably better position to investigate and to verify, as he works on the spot and those others were forced to base an opinion on faulty and second-hand information and poor scraps of material. In that connexion he demonstrated by an example, how certain opinions of the Ancients may be misunderstood and for that reason rejected and said: "truly, this may serve, in order that the books of the Ancients shall not so readily be defamed, or be accused of lies, if some circumstance or other is not immediately observed to be like they described it; because facts come daily to the fore, which remained long unknown, but are found in the writings of the Ancients which are often not understood in the right fashion; and so the whole of Dioscorides can be defended if he is correctly interpreted". When discussing Cyprus *(Alcanna* or *Lawsonia inermis),* at that time as a rule wrongly described or identified by European botanists and e.g. thought to be a *Ligustrum,* he patiently traced the source of the errors. He pointed to a describer who took the seeds for the fruits, a mistake resulting from "too great a respect" for predecessors and an inclination to identify foreign plants with native ones. All this argument runs its course coolly, without a trace of pedantry or pride in his own superior knowledge; contrarily to many of his contemporaries he was tolerant, unbiased, and modest, and he had an open mind. His criticism was always measured and only given when a constructive thought or better knowledge resulted from it. His ultimate object was to find out the actual state of affairs, the truth of the matter, and to that purpose he wrote, objected or corrected, or added, or discovered, always being on the alert to save the feeling of others.

He experimented with and cultivated in his botanical garden many kinds of plants. Many were brought as being the "genuine" balsam, scent, condiment or whatever the case might be. At a time the Ambonese bring him a "genuine" kind of spice, which they had secured far in the mountains. He accepted the plants and put them immediately in his garden, though he had, he remarked, immediately noticed that it could never be the "genuine" species. But, he wrote, I remained silent, because I did not wish to dishearten those who took pains to bring it me. Rumphius had a kind heart and he had a sound knowledge of the human mind.

He devoted a page to an account of the folklore ascribing the origin of man to the bambu, a belief adhered to by various Moluccan nations. Rumphius, being a Christian, held of course a different opinion, but instead of a violent attack on these heathen errors, or to praise himself blessed because his eyes were opened to the light — the themes on which the believers of the period so readily paraphrased — Rumphius said: "More examples I could add, of what kind of idolatry our Christian Ambonese exercised, even but few years ago, and in front of large and beautiful bambu clups, and perhaps they continue in secret, but I omit them as I want to avoid making them ashamed, and I only allude to this to demonstrate, that they desire to thank the Creator of nature in their way acting from an innocent lack of knowledge; they are thankful for these and similar plants, of which they

have so many commodities, or into which nature put so numerous virtues, like I often adduced in my writings, and by which they put, I hold, us Christians to shame".

And he had a sense of humour. From many examples of his good-natured jokes I only quote a single alinea from a letter to Governor-General Camphuys. He offered Camphuys a collection of Ambonese shells with the following charming comment. "I have also been informed, not long ago, that Your Excellency by Your servants on the islands Edam and Alckmaer have had collected so many Sea curiosities of shells, that they might defy the Ambonese and Moluccan kinds, which agrees with my old guess and assures me that it must be partly correct, as I received already more than 40 species from the Batavian beaches sent by several friends. But whether they could defy the Ambonese in preciosity and beauty of kind that touches the honour of the Ambonese princety while we have sent over the seas rarities during these many years. I have therefore decided, subject to Your Excellency's consent, to put this to an issue and to stage a test, and to that end I have called to the colours about a hundred species from among the Ambonese champions; they are wrapped together in a little tom-tom sent herewith. They are charged to challenge the Batavian fighters, and I am hoping to hear the outcome of that Bataille in time; should they lose the battle, they need not return but may remain in captivity".

I have reached the end of my homage to the blind seer of Ambon.

When Governor-General van der Capellen visited in 1824 Amboina, he erected a new monument in honour of the greatest pioneer naturalist that had ever lived in the Moluccas. The first grave monument had been destroyed by English soldiers who hoped to find gold buried under it. This second monument remained till it was hit by a bomb in the last world war and was smashed. Will it be replaced by a new, a third monument? It seems an attractive thought but whether it will be realized or not, the memory of Rumphius remains undamaged, unchanged. Among his other works is the *Herbarium Amboinense,* indestructible, an ever green, ever flourishing garden, the surviving and stirring evidence of the life of a great man and great scientist. All those who may be interested for personal or professional reasons in the plant world of the Moluccas, and also all those who really care for the progress and development of science and true culture will honour Rumphius, now and in the future.

Terminology of *-onyms* as applied in Taxonomy

by

J. Paclt (Bratislava)

I think it might be useful to publish in our well-beloved Taxon a short list of terms used in biological taxonomy to distinguish between various types of scientific names.

Selected references

(1) American Code of Botanical Nomenclature. Bull. Torrey Bot. Club **34**: 167-178, 1907.

(2) Lanjouw J. (ed.) Botanical Nomenclature and Taxonomy. Chron. Bot. **12** (1-2): 38, 1950.

(3) Paclt J. in Věda a Život **14**: 413-416, 1948.

(4) Richter R. Einführung in die zoologische Nomenklatur. 2. Aufl. Frankfurt a. M. 1948.

(5) Walsingham (Lord) & Durrant J. H. Revision of the nomenclature of Microlepidoptera. Entomol. monthly Mag. (published in parts during many years — see **42**: 196-197, 1906; **45**: 46-51, 1909 and later on).

* * *

ANTONYM. — Each name being not a synonym. Strictly, this term applies to words of an opposite meaning. Ref. (3).

BASIONYM (misspelt "basinym"). — A name-bringing synonym, i.e. a name used by the original author, e.g. *Clavaria corniculata* FRIES (cf. Neonym). Etymology: *βασιο* + *ώνυμος* (basis + ónymos). Ref. (2).

GENONYM (misspelt often "geneonym"). — A name of a genus, a generic name. Ref. (3, 5).

HOMONYM. — A name preoccupied by another with the same orthography (junior homonym) or preoccupying a later identical name (older homonym). Ref. (1 to 5).

HYPONYM. — A term indicating that the

taxon to which it applies is undetermined. Syn.: nomen nudum, n. subnudum, n. dubium. Ref. (1).

IDIONYM. — A homonym due to some error in identification of two or more specimens which were suggested to be members of the same species, e.g. *Parietaria judaica* WILLDENOW (1805) nec STRAND (1759). Ref. (3, 5).

LOGONYM. — A name of a species which became the genotype by subsequent designation. Ref. (5).

MATAEONYM (term. nov.). — A superfluous name given when there is an older valid name based on the same type (= Typonym II) or on another member of the same group (= Metonym). Syn.: nomen superfluum, n. hypertelicum. Ref. (1).

METONYM = Mataeonym.

MORPHONYM. — A name of a species, the specific name. Ref. (5). Accordingly, we may have a hypomorphonym which would mean a name of an infraspecific taxon like subspecies.

NEONYM. — A new name proposed to replace either a junior homonym or a name of a new combination, e.g. *Donkella corniculata* (FRIES) X. Y., comb. nov. (cf. Basionym). Ref. (3, 5).

PARONYM. — A name related etymologically to another but spelt differently, e.g. *Bougainvillea* (COMM.) SPACH and *Buginvillaea* COMM. ex JUSS. Paronyms may be synonyms or not. Ref. (3).

POLYONYM. — A name of quite different and permanently confused meanings. Syn.: nomen ambiguum, n. confusum. Ref. (3).

SYNONYM. — A name of the same meaning as another. Ref. (1 to 5).

TAUTONYM. — A trivial name which exactly repeats the generic name with or without the addition of a transcribed symbol. Rejected in botany, used in zoology. Ref. (1, 3, 4).

TYPONYM (I). — A trivial name like *typus, typicus, typicalis* being used in designation of the genotype (holo-genotypus typonymicus). Used in zoology. Ref. (3, 4).

TYPONYM (II) = Mataeonym.

TYPOLOGICAL CLASSIFICATION OF FLOWERING PLANTS

by

E. E. LEPPIK (Sioux Falls, S. D.).

Latest observations on the behavior of the family of *Bombidae* once more confirmed the well known ability of pollinating insects to distinguish clearly the flower types from each other. In carrying on their delicate work, these pollinators normally do not mix the pollen of different plant species, whose distinctive characteristics are clearly expressed in their flowers. The *steadfastness* of pollinators to *certain species* (Artstetigkeit), or *to a definite flower type* respectively (Typenstetigkeit), is one of the most important prerequisites for a steady evolution of flowering plants.

The experiments with new nerve poisons led to the discovery of several new instincts and senses of insects: sense for colors, symmetry, numbers, distance, smell, orientation, and a keen all-esthetic sense, which is similar to, but not identical with, our sense for beauty. Dr K. VON FRISCH with his extensive research disclosed a perfect system of communication among the bees.

This experimental work and new observations in nature, favored the clarification of interrelations between the insects and plants, providing a new approach to the problem of evolution of flower types from the standpoint of a biological whole, or *holon**).

Fitted with these remarkable psychic and physical abilities, and guided by the *trophe-clectic* or food selecting *instincts*, the pollinating insects unconsciously are the carriers of an important selective work among the flowering plants. Steadfast to a certain species, but selective among the varieties and ecotypes of the same species, the insects expect to find richer nectar deposits from flowers that are more beautifully colored and whose odors are more intensive and attractive. And their expectations have indeed been fulfilled.

*) According to a proposition of Professor Dr F. MERKENSCHLAGER, *"hologenesis"* is the most natural term to use in expressing the genesis and historical development of the biotic whole or holon, though the euphonious Greek word *"holos"* has already been used in connection with *"genesis"* in different meanings.

To produce more polysaccharids for nectar, additional pigments for colors, and fine oils and esters for odors, the plants have to steadily improve their biochemical metabolism. During a long period of time, this selective activity of pollinators brings about considerable progress in the biochemical composition of flowering plants, as it exists in the different taxonomic groups of various phylogenetic ages.

Further selective activity of pollinators is directed to the "breeding" of special flower types. The sense reaction of several groups of pollinating insects to certain flower types is now established experimentally. The individual achievements of a large number of pollinators of the same species are coordinated by the same instincts and are evidently directed through many generations toward the same goal. The result of this guided selection of pollinators, which has very probably been going on since the Jurrasic Period, is the evolution of flower types to their present perfection in color and symmetry.

To the plant taxonomist this revolutionary achievement of experimental biology offers a new foundation for the *typological classification* of flowering plants. According to this viewpoint, a type is a definite natural unit recognized by pollinators, somewhat in the same manner that a species is accepted by taxonomists. The application of a typological method also offers a new basis for phylogenetical consideration, and throws new light upon the evolution of flowering plants.

References: Sendbriefe aus dem Inst. Gärtn. Bot. Pflanzenschutz, Weihenstephan, 1947-1949. — „Orion", München, 107—709. 1951. — Anz. Schädl.kunde **1951**: 161—165. — Agr. Chemicals **1951**: 48—49. — Am. Bee Jour. **1951** (no. 11); **1952** (no. 5—7). — K. von Frisch, Bees, Cornell Univ. Press, 1950.

INDEX HERBARIORUM

PART II. COLLECTORS

This second part of the "Index Herbariorum" will be issued in instalments, the first one of which may be expected in the first three months of 1953. This Collectors' Index will contain a list of all collectors of any importance with indication of the herbaria in which their collections are preserved. The herbaria will be indicated by means of the standard abbreviations proposed in Part I (The Herbaria of the World, Jan. 1952). A full and up-to-date list of these abbreviations will be printed again in the first instalment of the Collectors' Index.

Note for Directors of Herbaria

To our regret we have to repeat that there are still a number of herbaria from which we have not yet received a list of collectors. A personal communication has recently been sent to most of them, but others may have been overlooked. *All herbaria that did not yet send a list of their collections or that can give additional information, are earnestly requested to do so before 1 December, 1952.* Surely: everyone will understand how desirable it is to avoid as much as possible that a too large number of data will have to be consigned to supplements.

The following directions may be of some use:

List all collections or at least the most important ones. In which country or region were these collections made? If anyone person made more than one collection, please list them separately. If the collection represents the first set, indicate it by adding "orig.". Give if possible the number of specimens of each collection. If the collection includes cryptogams or any other special groups, indicate it by adding: *incl. Crypt., Fungi, Algae,* etc.

Examples:

Chapman, F. S. Greenland (1933) : 575 (incl. *Lich.*).

Chassagne, M. France (± 1870) : 20 *(Salix).*

Supplement to Part. I

A supplement to the first part of the "Index Herbariorum" ("The Herbaria of the World") will be published in the first months of 1953. In the course of November 1952 all herbaria listed in this first part will receive a questionnaire asking for additional information. This questionnaire will be accompanied by a copy of the relevant entry in Index Herbariorum. The Directors and/or Curators of the respective Institutes are requested to use this opportunity to submit supplementary information on changes in the staffs, important acquisitions, etc.

All information on institutes and herbaria that have hithertoo not yet been recorded will be highly appreciated.

Proposals concerning the International Code of Botanical Nomenclature, submitted to the Eighth International Botanical Congress – Paris 1954

Proposal 2*

The following is a proposal for a decisive action one way or the other on the small but troublesome question of whether or not any epithets of specific or lower rank are to be begun with initial capitals. Although the preference of the proposer is for the second alternative, it seems more important that one or the other should be adopted than that one should be adopted rather than the other.

Alternative proposal a. The epithets of species or of taxa of lower rank are begun with a small initial letter.

Alternative proposal b. The epithets of species or of taxa of lower rank are begun with a capital letter if they are taken directly from personal names or the names of deities, or if they are generic names or aboriginal names used without alteration; otherwise, they are begun with a small letter.

It is recommended strongly that one or the other of the above proposals be adopted as an article, not as a recommendation, in order that there may be a clear and definite settlement of the question involved.

LYMAN BENSON
Department of Botany
Pomona College, Claremont, Cal.

* Prop. 1 in Taxon **1**: 79. 1952.

News from the Herbaria

MISS ELSIE M. WAKEFIELD, O.B.E., M.A., F.L.S.

On July 3rd, 1951, Miss Elsie Maud Wakefield was placed on the retired list, after 41 years service as mycologist at the Royal Botanic Gardens, Kew.

Miss Wakefield was educated at the Swansea High School for Girls and Somerville College, Oxford. She had an interest in the larger fungi from school days, and used her artistic talent to make coloured drawings. While at Oxford she attended a course in Forest Pathology given by Professor W. Somerville, and after completing the degree course in Botany was awarded a Gilchrist Scholarship, with which she proceeded to Munich to work at the Forstliche Versuchsanstalt under Professor von Tubeuf. There she undertook an investigation into the conditions determining the production of fruit-bodies in cultures of Hymenomycetes, and her first paper appeared in the Naherwissenschaftliche Zeitschrift für Forst-und Landwirtschaft, Vol. 7, 1910. After her return to England, she was appointed an Assistant in the Herbarium at Kew, to work under Mr. G. Massee, and she took up her duties there in January 1910.

After Massee's retirement in 1915, the mycological work at Kew, which up to then had included advisory work in pathology for both Britain and overseas, was reorganised, and the home pathological work was delegated to the newly established Pathological Laboratory of the Ministry of Agriculture. Later (1921) the Imperial Mycological In-

stitute came into being and took over much of the overseas pathological work, but up to that time Miss Wakefield was in charge of both Fungi and Lichens at Kew and at the same time undertook considerable advisory work. After the Mycological Institute began to function the advisory duties lessened, and she was able to give more time to systematic work on the fungi, but until 1944 she had only occasional temporary help, while demands for critical work increased. In the autumn of 1920 she was seconded to work with the Imperial Department of Agriculture for the West Indies for 6 months, and thus was able to utilise a travelling fellowship granted by Somerville College in order to get first-hand knowledge of tropical fungi and diseases of tropical crops.

In later years she has been active in connection with mycological nomenclature, and attended International Botanical Congresses at Ithaca, Cambridge (1930), Amsterdam (1935) and Stockholm (1950). She was secretary of the British Mycological Society from 1918 to 1936, and was President in 1929. She was made an Honorary Member in 1941 in recognition of her services to the Society; and in 1950, in recognition of her services as a mycologist to the Empire she was honoured by His late Majesty King George VI.

A. A. Bullock

LA SOCIEDAD PERUANA DE BOTANICA

The following tribute to this new Society is paid in the Revista de la Sociedad Cubana de Botánica **9** (1): 1. 1952:

En la hermana y progresista república del Perú se constituyó hace poco la Sociedad Peruana de Botánica. (Pres.: Dr J. César Vargas C.; Secr. Gen.: Dr Julio López Guillén; Tes. Dr Nicolás Angulo).

Es como si el espíritu de la Botánica, que flotara sobre el suelo andino desde los tiempos más remotos y permaneciera latente, cual llama votiva, emitiera un nuevo destello más brillante y esplendoroso. Es la obra ingente de un grupo de esforzados que, siguiendo las huellas gloriosas de los Raimondi y de los Weberbauer, están escribiendo una honrosa página más en la historia de la Botánica en la vieja tierra del Tahuantinsuyo.

En el Boletín que publica la Sociedad aparecen notables trabajos sobre la Flora Peruana, debidos a destacados botánicos de la América Meridional, y en todo él se nota, dominante, el altruismo, como puede apreciarse por las siguientes palabras que transcribimos de unos de sus números: "La Sociedad Peruana de Botánica nació como resultado del anhelo de los cultores nacionales de la Ciencia Botánica . . . dando íntegra su voluntad y ofreciendo el concurso de su entusiasmo, así como el tesoro de su fé . . . la Sociedad Peruana de Botánica promete seguir laborando en este campo de inquietud y verdad" . . .

NEW FLORAS AND ENUMERATIONS

Intermountain flora Western U.S.A.

Prof. Arthur Holmgren of Utah State Agricultural College, Logan, will spend the summer at The New York Botanical Garden in order to advance the program of study on the intermountain flora of the western United States, which will eventuate in a Flora of the region to be published by The New York Botanical Garden.

Enumeratio Spermatophytarum Japonicarum

"Enumeratio Spermatophytarum Japonicarum" being a bibliographic enumeration of flowering plants indigenous to or long cultivated in Japan and its adjacent Islands; part II Rubiaceae — Compositae, by *Hiroshi Hara*, Tokyo, Iwanami Shoten, 1952. Japanese; scientific names and citations of literature printed in Latin type.

PERSONALIA

At the annual meeting of the Corporation and of the Board of Directors, New York Botanical Garden, May 15, 1952, Dr L. H. Bailey of the Bailey Hortorium, Ithaca N.Y. and Dr E. D. Merrill, Emeritus Professor and Director of the Arnold Arboretum, Jamaica Plain, Mass. were both honored by the receipt of the New York Botanical Garden's Distinguished Service Award for outstanding contributions to the advancement of horticulture and botany.

Richard S. Cowan and John J. Wurdack upon whom Columbia University conferred the degree of Ph. D. on June 5, have been appointed Assistant Curators of The New York Botanical Garden. They will be members of the staff of the Herbarium of which Dr David D. Keck is Head Curator. Dr Cowan will leave in August for a year's study in England and on the continent,

having been awarded a postdoctoral fellowship by the National Science Foundation.

Dr Arthur Cronquist will join the staff of The New York Botanical Garden on September 1. Recently of the Department of Botany of the State College of Washington at Pullman, Dr Cronquist has been working for the past year under E.C.A. at Jardin Botanique de l'Etat, Brussels, Belgium, on the flora of the Belgian Congo.

George M. Bunting is coming from the Department of Horticulture of Michigan State College, Lansing, to The New York Botanical Garden as Technical Assistant in the herbarium.

Dr F. R. Fosberg, Pacific Vegetation Project, returned on May 6 from a seven months trip to the Pacific. Most of this time was spent in the northern Marshall Islands, where, in the course of studies of the vegetation, a collection of herbarium material of about 850 numbers was collected. When studied these specimens will be deposited in the U.S. National Herbarium. A further short trip is contemplated in the summer (1952) to visit two hitherto botanically unexplored atolls, Bikar and Pokak, where landings were not effected on the previous trip.

The Pacific Vegetation Project, now under the sponsorship of the U.S. Geological Survey, is engaged in studies of the vegetation of the islands of the Tropical Pacific, especially of Micronesia. Dr Fosberg is assisted by Mlle Marie-Helene Sachet, formerly of the Laboratory of Vegetable Biology, University of Paris.

Dr Ir A. W. Kloos, co-editor of the "Flora Neerlandica", died 3 June 1952. The deceased, although not a botanist by profession, was one of the most outstanding workers on the flora of the Netherlands. On 10 January 1946 he was honored by the receipt of the honorary doctor's degree of the University of Leiden.

Dr Gerard B. Ownbey has been appointed Associate Professor of Botany at the University of Minnesota, Minneapolis, Minn. — U.S.A.

Dr Thomas Morley has been appointed Assistant Professor of Botany at the University of Minnesota, Minneapolis, Minn. — U.S.A.

Mr Gordon P. DeWolf, Jr., from New Orleans, La. will be staying at the Dept. of Botany, University of Malaya, Cluny Road, Singapore 10 from October 6, 1952 until June 15, 1953.

William Lawrence White, Associate Professor of Botany at Harvard University and Director of the Farlow Herbarium, Cambridge, Mass., died 31 July 1952 in Emerson Hospital, Concord.

Dr White was an expert in the study of molds and other forms of fungi. During World War II he supervised Army research aimed at preventing fungous damage to clothing, food, equipment and supplies. As a member of the Air Technical Service Command Tropical Science Mission in 1945-46, he travelled extensively in tropical countries, making a broad survey of the fungal deterioration of Army material.

He was born in Salina, Pa., May 29, 1908, and graduated from Pennsylvania State College in 1934. He received the Ph. D. degree from Cornell in 1940. After a period of teaching and research at Cornell, he came to Harvard in 1941 as Bibliographer and Assistant Curator of the Farlow Library and Herbarium. He entered Army service as a civilian scientist in 1943, becoming head of the Army Quartermaster's Mycological Laboratory in 1944. He returned to Harvard in 1948 as Director of the Farlow Herbarium.

New Institute Members

Texas Research Foundation, Renner, Texas, U.S.A. (R).

University of Hawaii, Library, Honolulu 14, Hawaii (R).

The Inspector General of Forests, Lagos, Nigeria (R).

Muséum National d'Histoire Naturelle, Laboratoire de Phanérogamie, 57 Rue Cuvier, Paris V, France (R).

Indian Botanic Garden, Distr. Howrah, Calcutta, W. Bengal, India (R).

Botanischer Garten und Museum der Universität Zurich, 40 Pelikanstrasse, Zürich, Switzerland (R).

Brooklyn Botanic Garden, 1000 Washington Avenue, Brooklyn 25, New York, U.S.A. (A).

Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa, U.S.A. (A).

Membership Fees 1952

Members which have hitherto hesitated to pay their fees for the current year are requested to do so.

Members in countries without financial agents are requested to make payable their subscriptions to *Messrs Vlaer & Kol, Utrecht, Netherlands,* crossed: *"a.c. International Bureau for Plant Taxonomy".*

A. Individual Persons	$	£	D.fl.	Sw.Kr.
Regular Members	3.—	1.1.—	11.40	15.90
Associate Members	1.—	—.7.—	3.80	5.30
B. Institutes, Societies, etc.				
Supporting Members	50.—	17.10.—	190.—	265.—
Regular Members	25.—	8.15.—	95.—	132.50
Associate Members	10.—	3.10.—	38.—	53.—

Payments can be made in any currency; remittances in other currencies than those listed above are accepted against the exchange rates of the day of payment.

Regnum Vegetabile

Vol. II. *Index Herbariorum.* A guide to the location and contents of the World's Public Herbaria, edited by J. LANJOUW Ph. D. *Part 1. The Herbaria of the World,* by J. LANJOUW Ph. D. and F. A. STAFLEU Ph. D.; XVI and 167 pages; 16 × 24 cm; 15 February 1952. Details about contents and *prices for members* are given on p. 41 of Taxon no. 3. Price for *non-members:* Dfl. 13.30. Orders can be sent to the *office* of the I.A.P.T.

Vol. III. *International Code of Botanical Nomenclature.* The preparation of the French translation of the Code has been suffering a delay. Because of this circumstance beyond the power of the Editors, the publication of the Code can only be expected in the course of September.

Non-Members: Dfl. 14.— (buckram Dfl. 15.90)

Members (Members are entitled to receive *one* copy against a reduced price):

A. Institutes, Societies, etc.	$	£	D.fl.
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Austria: Dr K. H. RECHINGER, Naturhistorisches Museum, Botanische Abteilung, Burgring 7, Wien.

Belgium: Prof. W. ROBYNS, Rijksplantentuin, 236 Koninklijke Straat, Brussel.

Canada: Prof. J. ROUSSEAU, Montreal Botanical Garden, 4101 Sherbrooke Street East, Montreal, Que.

Egypt: Dr MOHAMMED DRAR, Fouad I Agricultural Museum, Dokki, Cairo.

Germany: Dr WALTER DOMKE, Staatsinstitut für Allgemeine Botanik, Jungiusstrasse 6, Hamburg 36.

Great Britain and British Overseas Territories: Mr A. A. BULLOCK, The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey, England.

Italy: Prof. R. E. G. PICHI SERMOLLI, Herbarium Universitatis Florentinae, Istituto Botanico dell'Universitá, Via Lamarmora no. 4, Firenze.

Netherlands: The International Bureau for Plant Taxonomy and Nomenclature, Lange Nieuwstraat 106, Utrecht. Bankers: Messrs Vlaer & Kol, Utrecht, giro 7247.

Norway: Prof. K. FAEGRI, Universitet I Bergen, Botanisk Museum, Bergen.

Sweden: Mr Bo PETERSON, Botaniska Museet, Lund. Postgiro 43.35.39.

U.S.A.: Dr R. C. ROLLINS, Gray Herbarium, Harvard University, 79 Garden Street, Cambridge 38, Mass.

Office

The International Bureau for Plant Taxonomy and Nomenclature, 106 Lange Nieuwstraat, Utrecht — Netherlands.

"Taxon" is directed by: Prof. J. Lanjouw, Chief Editor, and Dr F. A. Stafleu, Assistant Editor. All correspondence should be sent to the International Bureau for Plant Taxonomy and Nomenclature, 106 Lange Nieuwstraat, Utrecht — Netherlands.
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